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**Remarks****Amendments**

Claims 1,4-22 and 26 are pending in the application

Claims 2 and 3 are now cancelled.

Claims 1, 21, 22 and 26 have been amended.

**Claim interpretation**

It is well settled that claim terms are to be given their broadest reasonable interpretation, consistent with the specification." [T]o properly compare the [prior art] reference with the claims at issue, we must construe the [disputed] term ...to ascertain its scope and meaning." In re Paulsen, 30 F.3d 1475, 1479 (Fed. Cir. 1997). "[T]he PTO must give claims their broadest reasonable construction consistent with the specification..." In re Icon Health and Fitness, Inc., 496 F.3d 1374, 1379 (Fed. Cir. 2007) – *emphasis added*.

Claim 1 recites " (...) a time triggered communication mode in which the data is transmitted within a first communication cycle (...) the first communication cycle being triggered by time" and "operating in (...) the event triggered communication mode, said operating including transmitting the data (...) within a second communication cycle (...), said second communication cycle being triggered by an external or internal event". The time triggered communication mode and the event triggered communication mode are **distinct and different** communication modes. In the time triggered communication mode, the communication cycle is triggered by time and, in the event triggered communication mode, the

communication cycle is triggered by an external or internal event. It is observed that any other construction is **not** consistent with the description. For example §[0011] (... the communication system is not run in a time-triggered communication mode but rather in a so-called event-triggered communication mode), §[2535] (FlexRay supports two operating modes ...), Fig. 94 which illustrates two separate branches and §[2538] (... the different operating modes ...) make clear that the time triggered communication mode and the event triggered communication mode are **distinct and different** modes. Furthermore, in the embodiments in the specification, the time triggered communication mode (beginning at §[0761]) has properties different from and incompatible with the event triggered communication mode (beginning with §[2535]). For instance, in the examples, the time triggered communication mode can be distributed (see e.g. §[1586]) whereas, in the event triggered communication mode, the communication cycle is always initiated by a master node see §[2542]. The time triggered modes have a start-up cycle different from the event triggered communication mode (see figs 62 and fig 63 in conjunction with §[1586]). Also, for instance, in an embodiment of the time triggered communication mode, the clocks of the nodes are synchronized with respect to a global time whereas, in the event triggered communication mode, there is no global notion of time, (see §[2570]).

Accordingly, the embodiment of the time triggered communication mode is not only distinct from but has properties which are actually incompatible with the properties of the event triggered communication mode. Thus, the only meaning consistent with the specification is that the time-triggered communication mode and the event triggered

communication mode are distinct and different modes. Although there is no other reasonable interpretation, claims 1, 21 and 26 have nevertheless been amended in order to expedite prosecution of this application by clarifying explicitly that the system is operable in different operating modes.

***Claim rejections- 35 USC 103***

Claims 1-22 and 26 stand rejected under 35 USC 103(a) as being unpatentable over Fellman in view of Ofek and further in view of Woods. These rejections are respectfully traversed since the combination of Fellman in view of Ofek and further in view of Woods does not, and in fact cannot, result in a communication system with all the features recited in claim 1. Accordingly, claim 1 is non-obvious over the combination of Fellman in view of Ofek and further in view of Woods and is therefore allowable for the reasons given in detail below.

**Fellman (US patent 6246702)**

The applicant agrees with the analysis provided in the Office Action concerning the disclosure of Fellman. However, it is observed that one skilled in the art would not seek to combine Fellman with either Ofek or Woods for the following reasons.

***Ofek (US patent 6735199)***

Ofek generally relates to a synchronous virtual pipe (SVP) and discloses a time frame switching method which utilizes a global common time

reference (CTR). It is noted that the term 'common time reference' as used in Ofek has a special meaning, since the CTR is actually the way a time interval is structured in a set of cycles which are each comprised of at least one time frame (see e.g. col. 42,44-48, abstract 1-3). Each time frame is associated with a particular one of the switches (see col. 12 l.42-46). The switches are each allowed to transmit packets in their associated time frame.

However, Ofek does **not** disclose an event triggered communication mode. In this respect, it is observed that an 'event triggered communication mode' as recited in claim 1 is a mode in which the communication cycle is event triggered, as follows e.g. from §[0011] of the present application: "... *the communication cycles ... are initiated whenever a certain external or internal event occurs. This means that the communication system is not run in a time-triggered mode but rather in a so-called event-triggered mode.*" It is observed that, in the Office Action, it has already been acknowledged that Ofek does not disclose a communication triggered by an event. As a logical consequence thereof, Ofek cannot disclose an 'event triggered communication mode' as recited in claim 1.

Moreover, Ofek only states that 'the time assignment controller assigns selected predefined time frames (col 11, 51-55). It is observed that the term 'time assignment controller' is only used at col. 11, 51-54 and that this paragraph should be read in light of the rest of Ofek (see MPEP 2141.02 VI). As follows from e.g. the description of Fig. 3, these time frames determine the period in the time cycle a switch is allowed to transmit. Thus, the 'time assignment controller' predefines which slot a

switch is allowed to use in the communication cycle. However, the 'time assignment controller' does not trigger the communication itself nor does the 'time assignment controller' influence the communication in any other way other than defining these slots. Accordingly, the 'time assignment controller' does not trigger the communication mode or the communication cycle.

Furthermore, Ofek only discloses a single mode and does not disclose a communication system having different communication modes. As explained above, the 'time triggered communication mode' and 'event triggered communication mode' as recited in claim 1 are distinct and different modes, and accordingly Ofek does not disclose both a 'time triggered communication mode' and an 'event triggered communication mode' as recited in claim 1.

***Woods (US patent 6748451)***

In the Office Action, it is asserted that Woods discloses a communication cycle initiated by an event. The Applicant respectfully disagrees. In this connection, it is observed that, in the instant Office Action, the Examiner has not responded to the following observations, which were previously made with respect to Woods. The Examiner is therefore respectfully requested to observe the requirements of MPEP 707.07f by responding to these arguments or by withdrawing the relevant related grounds of rejection.

To support the assertion that Woods discloses a communication cycle initiated by an event, the following phrase in Woods is quoted in the Final

Office Action: "(...) communication is established based on time deterministic tasks being performed (emph. added)".

Thus the communication is formed by time deterministic tasks, as follows from the words 'based on'. However, the phrase has been erroneously interpreted, out of context and inconsistent with the rest of the disclosure of Woods. In particular, "the communication is established as a reaction to the time deterministic task being performed", i.e. established 'in response' to and not 'based on'. The correct reading given above and consistent with the rest of the disclosure of Woods (a prior art reference must be considered in its entirety, see MPEP §2141.02 VI), is that the communication consists of the execution of time deterministic tasks (i.e. tasks performed at a predetermined point in time). Thus, Woods does not disclose a communication cycle initiated by an event rather a time initiated communication cycle.

Referring to the assertion in the Office Action that the event table disclosed in Woods, is to be considered as an event, it is observed that the event table is not an event, rather a table which prescribes the point in time a member node has to perform a task (see e.g. Fig. 6).

Accordingly, Woods does not disclose a communication cycle initiated by an event.

Woods does disclose a system using a centralized scheduling of cooperatively performed tasks (see column 3 ll. 26-28). The system includes a plurality of nodes which can communicate with each other. A time-based schedule of communications is defined and each communication is initiated at the time defined in the schedule (see

column 35 ll. 35-36, column 12 ll.11-13). Thus, the respective task is not initiated by an event but by the mere arrival at the point in time the task is scheduled. Accordingly, the communication cycle is not triggered by an event.

Woods discloses that a request list 113,115 of communications is generated based on the tasks required from the member nodes 107,10. The request list is transmitted to the master scheduler 106 (see column 7 ll. 56-59). The master scheduler 106 combines the request lists into a communication schedule represented in the master event table 112. It is observed that the master event table is not an event itself but a table which prescribes the time a member node has to perform a task (see column 12 ll.64-66). As shown with field 612 in FIG. 6, the master event table 112 contains the scheduled start time of the scheduled communication. Thus, the scheduled communication is part of the time-based tasks and is therefore time triggered.

As described at e.g. column 7 ll. 49-50, the member nodes receive an event table 114,116 from a master scheduler 106. It is observed that the event table 114,116 is not an event rather a table which prescribes the time a member node has to perform a task (see column 8 ll. 1-3 and FIG. 6. In FIG. 6, the master event table 112 is broken into sections applicable to each member node to be included in the respective local event table 114,116.) Thus the respective task is not initiated by an event but by the mere arrival at the time the task is scheduled in the event table. Accordingly, the member nodes will execute the tasks, which include the communication tasks, listed in the event table at the time defined in the event table. Accordingly, the communication cycle is a time

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initiated communication cycle and not a communication cycle initiated by an event.

As follows from the above, Woods does not disclose a communication cycle initiated by an event. Moreover, as implied in the Office Action, Woods does not disclose different communication modes.

### ***Conclusion***

As acknowledged in the Office Action, neither Fellman nor Woods discloses the feature of:

...the communication system having a time triggered communication mode in which the data is transmitted across the communication media within a first communication cycle comprising a number of time slots, each time slot being assigned to one or more nodes of the communication system, which first communication cycle is triggered by time, and having an event triggered communication mode, the method comprising the steps of:

operating the communication system in the event triggered communication mode, said operating including transmitting the data across the communication media within a second communication cycle comprising a number of time slots, each time slot being assigned to one or more nodes of the communication system.



As follows from the above, this feature is also not disclosed by Ofek. Accordingly, the combination of Fellman, Ofek and Woods cannot result in a method with the features recited in claim 1. Furthermore, as also acknowledged in the Office Action, neither Fellman nor Ofek discloses a 'communication cycle initiated by an event' as recited in claim 1

As explained above, Woods does not disclose a 'communication cycle initiated by an event' as recited in claim 1. Therefore, the combination of Fellman, Ofek and Woods cannot result in a method with a 'communication cycle initiated by an event' as recited in claim 1. Accordingly, claim 1 is not obvious to one skilled in the art. Furthermore, independent Claims 21 and 26 recite features corresponding to those of claim 1 and for that matter are non-obvious as well. Claims 4-20 and 22 are dependent claims referring to one of the independent claims, and are therefore also non-obvious.

Because of the above, it is submitted that the application is in condition for patenting and the Examiner is accordingly cordially requested to issue a notification of allowance.

No new matter has been added in this amendment.

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